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L15 3 L14

=> d bib abs 1-3

- L15 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:411890 CAPLUS
- DN 144:450725
- TI Preparation of pyrazolopyrimidinones and analogs, and their compositions as cannabinoid CB1 receptor inhibitors
- IN Liu, Hong; He, Xiaohui; Choi, Ha-Soon; Yang, Kunyong; Woodmansee, David;
 Wang, Zhicheng; Ellis, David Archer; Wu, Baogen; He, Yun; Nguyen, Truc
 Ngoc
- PA Irm LLC, Bermuda
- SO PCT Int. Appl., 259 pp.
- CODEN: PIXXD2
- DT Patent
- LA English

FAN.CNT 1

FAN.	PATENT	KIND		DATE		APPLICATION NO.						DATE				
PI		WO 2006047516 WO 2006047516							WO 2005-US38361					20051026		
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			CO, CR,													
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		YU, Z	ZA, ZM,	ZW												
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		GM, K	Œ, LS,	MW,	${ m MZ}$,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	AΖ,	BY,
	KG, KZ, MD,															
	AU 2005299421							AU 2005-299421								
	CA 2581225							CA 2005-2581225								
		EP 1807429						EP 2005-813001								
	R:	AT, E		•					•		•		•	•	•	•
		•	IT, LI,	•	•	•	•	•	•	•	•	•	•		•	
	CN 101048408						CN 2005-80036890									
	JP 200	rP 2008518016				2008	JP 2007-539039					20051026				

	IN 2007DN02514	A	20070803	ΙN	2007-DN2514	20070403
	MX 200704936	A	20070625	MX	2007-4936	20070424
	KR 2007057980	A	20070607	KR	2007-709370	20070425
	NO 2007002352	A	20070531	ИО	2007-2352	20070507
PRAI	US 2004-622508P	P	20041026			
	US 2005-672670P	P	20050418			
	WO 2005-US38361	W	20051026			
OS	CASREACT 144:450725	; MARPA	T 144:450725			
GI						

AB Title compds. I [Y = 0, NH and derivs., S; R1 = (un)substituted Ph, heteroaryl, cycloalkyl, benzyl; R2 = (un)substituted Ph, OPh, heterocycloalkyl, heteroaryl; R3 = H, halo, OH, CN, etc.; R4 = (un)substituted hetero/aryl, alkyl, etc.; and their pharmaceutically acceptable salts, hydrates, solvates and isomers; with the exception of certain compds.] were prepared as selective cannabinoid CB1 receptor inhibitors. Thus, II was prepared, in 3 steps, starting from 5-amino-1-phenyl-1H-pyrazole-4-carboxylic acid Et ester and 2,4-dichlorobenzoyl chloride. Preferred compds. I showed a 100 fold selectivity for CB1 over CB2 receptor. Pharmaceutical compns. comprising I are useful for preventing and treating diseases or disorders associated with the activity of CB1 receptor, e.g. metabolic disorders.

L15 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:120677 CAPLUS

DN 140:163855

TI Preparation of substituted furo[2,3-b]pyridines as antagonists and/or inverse agonists of cannabinoid-1 receptor with therapeutic uses

PA Merck & Co., Inc., USA

SO PCT Int. Appl., 208 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

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PΙ
     WO 2004012671
                         Α2
                                20040212
                                           WO 2003-US24280
                                                                   20030801
                         А3
     WO 2004012671
                                20050609
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             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
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                          Α1
     EP 1558252
                                20050803
                                            EP 2003-767117
                                                                   20030801
                          A2
     EP 1558252
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                          В1
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                                20051215
                                            JP 2004-526367
                                                                   20030801
     AT 375349
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                                20071015
                                            AT 2003-767117
                                                                   20030801
     ES 2294330
                          Т3
                                20080401
                                            ES 2003-767117
                                                                   20030801
                                            US 2005-521821
     US 20050272763
                          Α1
                                20051208
                                                                   20050121
     US 7091216
                          В2
                                20060815
PRAI US 2002-400852P
                          Ρ
                                20020802
                          Ρ
                                20030320
     US 2003-456332P
                                20030801
     WO 2003-US24280
                          W
OS
     MARPAT 140:163855
GΙ
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AB Novel furopyridines (shown as I; variables defined below; e.g. II) are antagonists and/or inverse agonists of the cannabinoid-1 (CB1) receptor and are useful in the treatment, prevention and suppression of diseases mediated by the CB1 receptor. The compds. of the present invention are useful as centrally acting drugs in the treatment of psychosis, memory deficits, cognitive disorders, migraine, neuropathy, neuro-inflammatory

disorders including multiple sclerosis and Guillain-Barre syndrome and the inflammatory sequelae of viral encephalitis, cerebral vascular accidents, and head trauma, anxiety disorders, stress, epilepsy, Parkinson's disease, movement disorders, and schizophrenia. The compds. are also useful for the treatment of substance abuse disorders, the treatment of obesity or eating disorders, as well as the treatment of asthma, constipation, chronic intestinal pseudo-obstruction, and cirrhosis of the liver. Although the methods of preparation are not claimed, .apprx.200 example prepns. are included. For example, II was prepared in 3 steps starting by condensing 4-chlorobenzyl 2,4-dichlorophenyl ketone with DMF di-Me acetal in DMF to give 3-dimethylamino-1-(2,4-dichlorophenyl)-2-(4chlorophenyl)prop-2-en-1-one followed by cyclocondensation with 2-cyanoacetamide and methanol in DMF to give 6-(2,4-dichlorophenyl)-5-(4chlorophenyl)-2-oxo-1,2-dihydropyridine-3-nitrile followed by cyclization with 2-chloroacetophenone and Cs2CO3 in DMF. For I: R1 = C1-10alkyl, C2-10alkenyl, C2-10alkynyl, -CN, -COR4, -S(0)mR4, -S(0)2NH(CO)nNRe, cycloheteroalkyl, aryl, and heteroaryl; R2 = H, -NR5R6, -COR4, C1-6alkyl, C2-6alkenyl, C2-6alkynyl, aryl, arylC1-6alkyl, arylC2-6alkenyl, heteroaryl, heteroarylC1-6alkyl, heteroarylC2-6alkenyl, cycloheteroalkyl, hydroxy, and ORg; R3 = H, C1-6alkyl, C1-6alkyloxy, trifluoromethyl, trifluoromethoxy, halo, and C3-7cycloalkyl; Ar1 and Ar2 = aryl, heteroaryl; addnl. details are given in the claims. CB1 antagonist/inverse agonist compds. I have IC50s of <1 μM in the CB 1 binding assay; selective CB 1 antagonist/inverse agonist compds. have IC50s 100-fold greater in the CB2 binding assay than in the CB1 assay, and generally have IC50s of $\geq 1~\mu\text{M}$ in the CB2 binding assay. CB1 antagonist/inverse agonist compds. I generally have EC50s of <1 μM in the CB1 functional assay and selective CB1 antagonist/inverse agonists generally have EC50s of >1 μM in the CB2 functional assay. IC50 and/or EC50 values are not given for specific examples of I.

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L15 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
      2003:656768 CAPLUS
AN
     139:197478
DN
ΤI
     Preparation of pyrazolopyridines as GSK-3 inhibitors
IN
     Witherington, Jason
PA
      Glaxo Group Limited, UK
SO
      PCT Int. Appl., 69 pp.
      CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                           KIND DATE APPLICATION NO. DATE
                             A1 20030821 WO 2003-GB576
      WO 2003068773
РΤ
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               PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

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FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      AU 2003245700
                             A1 20030904
                                                   AU 2003-245700
PRAI GB 2002-3295
                             Α
                                     20020212
                             A 20020320
W 20030212
      GB 2002-6610
      WO 2003-GB576
     MARPAT 139:197478
OS
GΙ
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The title compds. [I; R1 = NR5COR6, NHCONHR7, NHCO2R8; R2 = H; R3 = H, AΒ halo, CN, NO2, etc.; R4 = H, cycloalkyl, heterocyclyl, (hetero)aryl, bicyclyl; R5 = H, alkyl; R6 = alkyl, alkenyl, cycloalkyl, etc.; R7 = alkyl, aryl; R8 = alkyl, arylalkyl], useful for the treatment of conditions associated with a need for inhibition of GSK-3 such as diabetes, conditions associated with diabetes, chronic neurodegenerative conditions including dementias such as Alzheimer's disease, Parkinson's disease, progressive supranuclear palsy, subacute sclerosing panencephalitic parkinsonism, postencephalitic parkinsonism, pugilistic encephalitis, guam parkinsonism-dementia complex, Picks's disease, corticobasal degeneration, frontotemporal dementia, Huntingdon's disease, AIDS associated dementia, amyotrophic lateral sclerosis, multiple sclerosis and neurotraumatic diseases such as acute stroke, mood disorders such as schizophrenia and bipolar disorders, promotion of functional recovery post stroke, cerebral bleeding (for example, due to solitary cerebral amyloid angiopathy), hair loss, obesity, atherosclerotic cardiovascular disease, hypertension, polycystic ovary syndrome, syndrome X, ischemia, traumatic brain injury, cancer, leukopenia, Down's syndrome, Lewy body disease, inflammation, and immunodeficiency, were prepared Thus, acetylation of 6-(4-chlorophenyl)-1Hpyrazolo[3,4-b]pyridin-3-ylamine with acetic anhydride in pyridine afforded I [R1 = NHCOMe; R2, R3 = H; R4 = 4-ClC6H4]. The most potent compds. I show IC50 values of 1-500 nM against GSK-3. Pharmaceutical composition comprising the compound I is claimed.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT